- Johnson, C. G., 1969. Migration and Dispersal of Insects by Flight.
   Johnson, G. F., 1944. Notes on some Lepidoptera of an Italian garden.
   Entomologist, 77: 149-154.
- Mannley, W. B. L., & H. G. Allcard, 1970. A field guide to the butterflies and burnets of Spain.
- Marten, W., 1956. Wanderflüge, Suchflüge und gerichtete Flüge bei Schmetterlingen. Ent. Z. Frankf. a. M., 66: 217-231, 237-239, 248-252.
- Muspratt, V., 1946. Migrations de Lépidoptères à Saint-Juan-de-Luz (Basses-Pyrénées) en juin, et dans les Hautes-Pyrénées en juinjuillet 1946. Rev. fr. Lép., 10: 355-366.
- ——, 1950. The behaviour of *Colias crocea* at St. Jean-de-Luz in winter. *Entomologist*, 83: 217-224.
- Newman, L. W., 1911. The Hybernation of Vanessa atalanta in captivity. Trans. ent. Soc. Lond.: 173-174.
- Roell, L., 1953. Beitrag zur Lepidopterenfauna Andalusiens. Ent. Z. Frankf. a. M., 63: 33-38, 41-48, 52-55.
- Roer, H., 1961. Zur Kenntnis der Populationsdynamik und des Migrationsverhaltens von Vanessa atalanta L. im paläarktischen Raum. Beitr. Ent., 11: 594-613.
- Smith, D., 1953. Butterflies seen in Majorca during October 1951. Entomologist, 86: 29-31.
- Tutt. J. W., 1897. On a collection of Spring Rhopaocera made in the Riviera, with some considerations considering the hybernation stage of certain butterflies. *Entomologist's Rec. J. Var.*, 9: 249-255, 279-282.
- Williams, C. B., 1930. The migration of butterflies.
- Williams, C. B., G. F. Cockbill, M. E. Gibbs and J. A. Downes, 1942.
  Studies in the migration of Lepidoptera. Trans. R. ent. Soc. Lond.,
  92: 101-283.

Amsterdam 1010, Oude Yselstraat 12III.

## The Moths of Wimbledon: Further Captures 1962-1970

By J. V. DACIE, M.D.

In 1962 I recorded in the Entomologist's Record (74, 109) a list of 300 species of moths (macrolepidoptera) taken in Wimbledon in the 6 years 1956-61. The majority were caught in a mercury vapour trap run in my garden while a few species were taken on Wimbledon Common which is about  $^{1}{}_{2}$  mile away. Between the two is a residential area in which most of the houses have large gardens. The present communication lists 32 additional species taken between 1962-70 and brings the total of personally taken species to 332.

The nomenclature and order of arrangement in the follow-

ing list are those of Heslop (1964).

## SPHINGIDAE: 1 species

Hyloicus pinastri L., 1 only, 12.7.70.

NOTODONTIDAE: 1 species

Notodonta ziczac L., 1 only, 22.5.65.

THYATIRIDAE: 1 species

Polyploca ridens F., 1 only, 7.5.62.

LYMANTRIIDAE: 1 species

Euproctis similis Fuessl., 1 only, 9.8.70.

ARCTIIDAE: 1 species

Cybosia mesomella L., 1 only, 30.6.68.

ZYGAENIDAE: 1 species

Zygaena filipendulae L., Wimbledon Common, 16.7.63.

NOCTUIDAE: 11 species

Euschesis interjecta Hübn., 1 only, 9.8.70.

Panolis flammea Schiff., several, 1965-66, 1968.

Leucania pudorina Schiff., several, 1963-64, 1967.

Apamea sublustris Esp., 1 only, 28.6.64.

Cosmia diffinis L., several, 1966-67, 1970. Agrochola lota Clerck, several, 1962-63.

Agrochola macilenta Hübn., several, 1970.

Citria lutea Stroem, 1 only, 21.9.63.

Ectypa glyphica L., Wimbledon Common, 1962.

Plusia pulchrina Haw., several, 1963-70.

Rivula sericealis Scop., several, 1968-69.

GEOMETRIDAE: 15 species

Sterrha emarginata L., 1 only, 16.7.67.

Rhodometra sacraria L., 1 only, 11.9.66. Xanthorhoe ferrugata Clerck, several, 1964-68.

Xanthorhoe designata Hufn., 1 only, 13.5.64.

Perizoma flavofasciata Thunb., 1 only, 10.6.65.

Philereme transversata Hufn., 1 only, 16.7.64.

Chesias legatella Schiff., 1 only, 13.10.70.

Anaitis plagiata L., several, 1969-70.

Hydrelia flammeolaria Hufn., 2 only, 1969-70.

Eupithecia millefoliata Rössl., 2 only, 16.7.61, 24.7.67.

Eupithecia castigata Hübn., several, 1963, 1965-66.

Eupithecia fraxinata Crewe, 1 only, 14.6.65. Ectropis biundularia Borkh., 1 only, 6.9.70.

Ectropis orunautaria Borkii., 1 olily, 0.3.70. Ectropis crepuscularia Schiff., 1 only, 29.4.70.

Ematurga atomaria L., several, Wimbledon Common, 11.6.62.

Of the above 32 "new" species 19 were recorded as being found in Wimbledon or Wimbledon Common by de Worms (1954-57) in his *Moths of London and its Surroundings*, Parts I-V and in the Supplements to these lists published in 1959 and 1960; 12 of the records, however, refer to insects listed in the 1898 *List of London Lepidoptera* compiled by the City of London Entomological Society.

Another interesting list of Wimbledon Moths has been

made available to me through the courtesy of Mr L. J. M. Wakely. This list comprises the species caught by his father Sir Leonard Wakely between 1910 and 1959. Out of 212 species, 17 have not been taken by me. It may be added perhaps that in de Worms's list there are a further 49 species not vet caught or observed by me in the Wimbledon area. Again. however, 25 of these species have not been recorded subsequent to 1898 and a further 9 species not since 1905. Adding these figures together the total number of species, past and present, recorded from Wimbledon practically reaches 400. 332 in my lists, 17 additional species taken by Sir Leonard Wakely. and 49 further species listed by de Worms, 34 of which are old (pre-1905) records. How many of the insects not noticed since near the end of the last century persist in the area is a matter of speculation. Many, unfortunately, seem likely to have disappeared for good.

In my earlier report (1962) I estimated that the number of species still to be found in the Wimbledon area was unlikely to exceed 350. The last 9 years' experience tends to support this contention. That well over one-third of the total species of macrolepidoptera in the British List (Heslop 1964) have been noted in the Wimbledon area in the last 15 years is, nevertheless, quite remarkable, bearing in mind the progressive urbanization of the district and the closeness of Wimbledon to the centre of London. Fortunately, Wimbledon Common, and adjacent Putney Heath and Richmond Park, still, no doubt, act as valuable reservoirs from which species can spread into the gardens in the neighbouring built up areas.

## REFERENCES

- Dacie, J. V., 1962. The Moths of Wimbledon. Ent. Rec., 74: 109-117.de Worms, C. G. M., 1953. The Moths of London and its Surroundings. Lond. Naturalist, 33: 101-146.
- de Worms, C. G. M., 1954. The Moths of London and its Surroundings. Lond. Naturalist, 34: 66-107.
- de Worms, C. G. M., 1955. The Moths of London and its Surroundings. Lond. Naturalist, 35: 33-76.
- de Worms, C. G. M., 1956. The Moths of London and its Surroundings. Lond. Naturalist, 36: 59-99.
- de Worms, C. G. M., 1957. The Moths of London and its Surroundings. Lond. Naturalist, 37: 136-178.
- de Worms, C. G. M., 1958. A Supplement to the Butterflies and Moths of London and its Surroundings. Part I. Lond. Naturalist, 38: 33-50.
- de Worms, C. G. M., 1959. A Supplement to the Butterflies and Moths of London and its Surroundings. Part II. Lond. Naturalist, 39: 99-129.
- Heslop, I. R. P., 1964. Revised Indexed Check-List of the British Lepidoptera, with the English Name of each of the 2,404 Species. Library Edition, Entomologist's Gazette.

10 Alan Road, Wimbledon, London, S.W. 19.